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# **Seams Steering Group – Western Interconnection --- An Update ---**

*Presentation to the  
Federal Energy Regulatory Commission  
January 29, 2003*

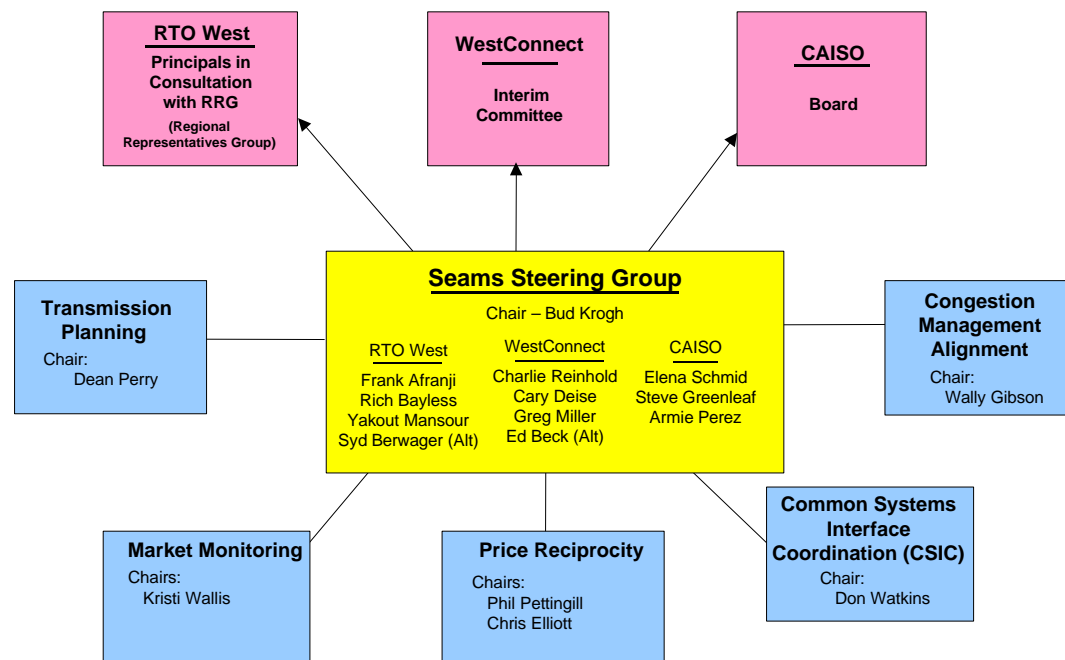


## **Seams Steering Group-Western Interconnection (SSG-WI)**

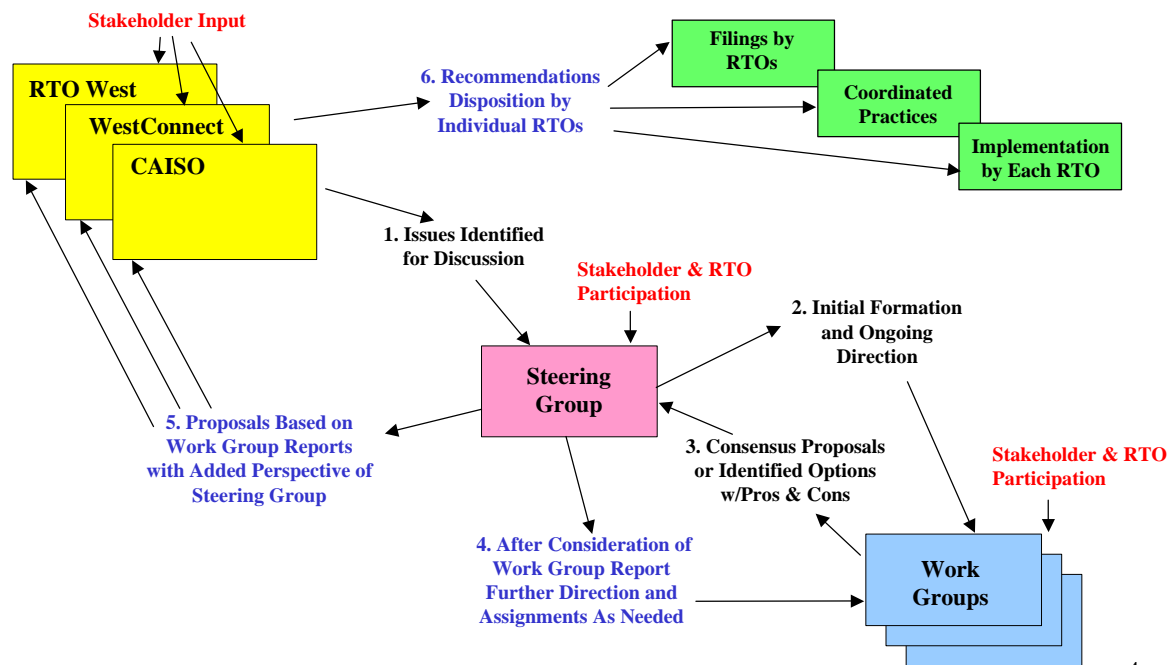
### **Background:**

- SSG-WI is a functioning “Seams” discussion forum for the Western RTOs.
- Representation – RTO West, WestConnect and CAISO.
- SSG-WI Structure – Three RTOs, one seamless market, individual RTO accountability – RTO Governing Boards have final decision-making authority.
- Three RTOs executed a memorandum of understanding (MOU) on December 5, 2002 to codify their commitment to the SSG-WI process.

# Organization Chart



## Process Chart





## **“Making It Work”**

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### **Practical Considerations:**

- Long history of finding West-wide solutions --Loop Flow & Phase Shifters, RTG Formation, etc.
- Inherent feedback between SSG-WI and RTOs, i.e., the same people working both processes.
- Sizable non-jurisdictional transmission assets in the West.

### **What We Need from FERC:**

- Flexibility in approach.
- Assistance in issue resolution.



## Stakeholder Participation

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- All SSG-WI Work Groups are open to stakeholder participation.
- The first open meeting of the Steering Group was January 21, 2003; approximately 50 in attendance in addition to the members of the Steering Group.
- Stakeholder representatives are submitting proposals for their ongoing participation in the Steering Group (proposals will be posted on the SSG-WI website).



## Summary of RTOs' January 8<sup>th</sup> Report Filing about SSG-WI

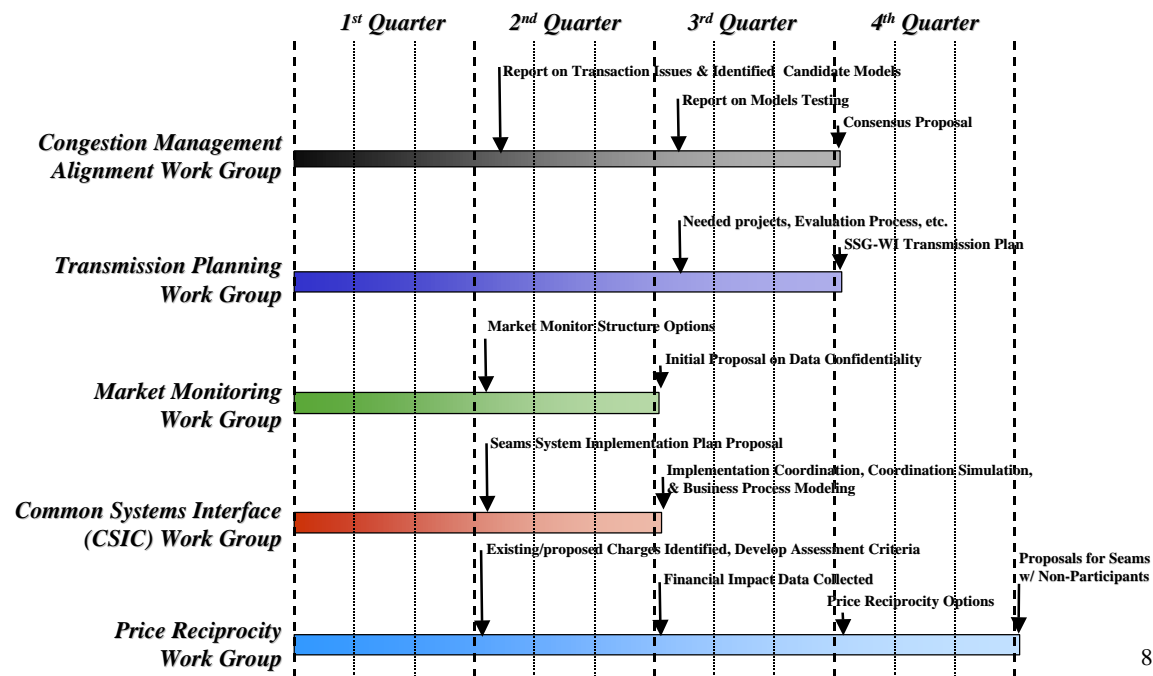
**Purpose:** To identify seams issues being addressed by SSG-WI and to detail SSG-WI's work plan and timetable for addressing those issues.

**Elements of Filing:**

- Reiterated and emphasized SSG-WI construct: SSG-WI does not have final decision-making authority.
- Summarized MOU and coordination with states.
- Summarized and detailed current activities and 2003 deliverables of SSG-WI Work Groups.
- Summarized other important considerations.



## Milestones for 2003





## Sequencing Development

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- Formation of the three Western RTOs offers the best opportunity to develop a seamless Western market.
- The primary focus in the West is for each Western RTO to complete its own market design.
- As these market design efforts are proceeding, the West has an opportunity to avoid future seams difficulties by addressing potential problems during the development process.
- As market design in each RTO proceeds, seams issues are being identified and referred to the SSG-WI process for consideration and development of proposals for resolution.
- Informed by the SSG-WI discussions, the three Western RTOs will determine how to best address seams issues and achieve a seamless market within the context of their individual market designs.



## **Congestion Management Alignment Work Group**

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### **Purpose:**

To eliminate seams issues associated with the Western RTO congestion management models by identifying and proposing solutions to those seams issues that would hinder the efficient operation of a seamless Western market.



## **Congestion Management Alignment Work Group**

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### **Framework:**

- FERC conditional approval of differing congestion management approaches.
- In seeking to eliminate or mitigate seams issues, will attempt to maintain, as far as possible, basic attributes of each RTO's model.

### **Goal:**

- Develop detailed consensus proposal on core elements of seamless Western market, building on earlier work.



## **Congestion Management Alignment Work Group**

### **High Level Assessment:**

- Analyze whether a mixed model of physical and differing (options versus obligation-based) financial rights, including their scheduling implications, is manageable for both system operators and users, and whether it allocates transmission efficiently.
- Determine whether, to the extent redispatch is required or used to manage congestion, it is necessary to have a single set of congestion clearing prices across the seams so that no inter-RTO barriers to trade or arbitrage opportunities result.
- Evaluate whether there is a way to allow differing granularity for the physical system model used by each Western RTO for its internal and its external calculations (internal to one is external to the others) or whether a single equally detailed physical model is required for each RTO.



## Congestion Management Alignment Sub-Groups

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### **Scheduling:**

- Step through scheduling process with two examples; transactions, from rights acquisition through settlements, focusing especially on day ahead to real time.
- Highlight incompatibilities and areas where the proposals work together.

### **Modeling:**

- Simplified modeling to simulate price calculations and evaluate approaches to handling transactions at the seams.
- Evaluate modeling granularity issues.



## **Transmission Planning Work Group**

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### **Purpose:**

To provide a forum to further the development of a planning process that is:

- Proactive,
- West-wide in scope,
- Supported by states, generators, transmission providers and customers, and
- Implemented prior to RTO formation.



## **Transmission Planning Work Group**

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### **Key Products to date:**

- Developed an initial proposal on a regional transmission planning process.
- Initiated development of detailed long-term planning studies, based in part on earlier Western Governors' Association (WGA) efforts, to identify necessary transmission expansion projects.



## Transmission Planning Work Group

### **Key Tasks:**

- Develop a process to identify transmission projects that are needed for economic reasons to facilitate a competitive and seamless West-wide wholesale electricity market.
- Develop a process to evaluate whether the projects are justified (necessary and cost effective).
- Determine the circumstances in which, and how, SSG-WI will support implementation of projects recommended by the Planning Work Group.
- Develop a regional process that avoids the need to resolve disputes at FERC.



## **Market Monitoring Work Group**

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- The Market Monitoring Work Group has developed a recommendation for a single West-wide market monitoring entity to monitor the three Western RTO markets and satisfy the Order 2000 market monitoring requirements for each of the Western RTOs.



## Market Monitoring Work Group

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- The Steering Group has reconfirmed that all three Western RTOs share a common goal of establishing a West-wide market monitoring *function*, but requested that the Work Group supplement its recommendation with additional options regarding the structure of the market monitoring function.



## **Market Monitoring Work Group**

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The following areas of consensus will likely be unaffected by the addition of new structure options:

- Market monitoring function will be independent:
  - Western RTO Boards will not act as screen for market monitor's reports to the Commission; and
  - Market monitor will have direct relationship with the Commission.



## **Market Monitoring Work Group**

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- Market monitor will actively monitor appropriate markets.
  - If market monitor identifies market performance that is inconsistent with competitive markets, it will evaluate further to determine cause (including the activities of all market participants including transmission providers and the RTOs) and report its results to the Commission.
- Market monitor will evaluate market design and, after consultation with RTO staff, will recommend market design and rule changes.
- Market monitor will monitor compliance with FERC-imposed mitigation measures and RTO-designed, FERC-approved mitigation measures.



## Market Monitoring Work Group

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### **Key Tasks:**

- Identify and evaluate options for how the West-wide function should be structured, for example:
  - Individual RTO market monitors coordinate on West-wide market issues;
  - Umbrella market monitor focuses on seams issues; and
  - Single, primary market monitor for Western markets.
- Consider the appropriate division of responsibilities between the West-wide market monitoring function and individual Western RTO market monitoring units.
- Consider appropriate data release and confidentiality standards.



## Common Systems Interface Coordination (CSIC)

### **Purpose:**

To share information and coordinate technical systems development for the Western RTOs in order to achieve:

- seamless interfaces between RTOs,
- lower costs, and
- systems and processes that have effective operability and that address the complexities of each region with their unique system characteristics and environment.



## Common Systems Interface Coordination (CSIC)

### Key Products to date:

- **Single market interface:** Recommended a methodology for developing a single market interface across the three Western RTOs.
- **Backup control center:** Identified options for providing backup control centers for the three Western RTOs.
- **Communications infrastructure:** Identified options for a single monitored high capacity communications system between the three Western RTOs.
- **Training:** Identified options for sharing training between the three Western RTOs.
- **Outlined a common/open system for wholesale electric transactions.**



## Common Systems Interface Coordination (CSIC)

### Key Tasks:

- **Implementation coordination** – Help Western RTOs keep current with and take into consideration each other's systems implementation processes.
- **Process simulation coordination** - Help the Western RTOs develop process simulation approaches that take into account systems of the three RTOs to avoid simulation gaps.
- **Business process modeling** - Identify opportunities to improve consistency among the Western RTOs with respect to transaction processes and terminology.
- **Look at other systems** as appropriate.



## Price Reciprocity Work Group

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### **Purpose:**

To develop a proposal(s) that reduces barriers to interregional trading while preserving each RTO's balanced pricing proposals and their underlying objectives.



## Price Reciprocity Work Group

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### **Products developed to date by Work Group:**

- Identified four viable price reciprocity options for further consideration:
  - No Change to Proposed RTO Pricing Structures;
  - Reciprocal Waiver of Wheeling Charges;
  - Transfer Payment Mechanism (Between RTOs); and
  - West-wide Wheeling Charge.
- Identified initial proposal regarding the criteria necessary to evaluate any price reciprocity proposals for further development and consideration.



## Price Reciprocity Work Group

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### **Key Tasks:**

- Identify applicable existing charges and proposed charges applied to various transactions.
- Collect data and analyze the financial implications on the current/proposed processes for collecting revenues related to interregional transactions.
- Finalize development of options for price reciprocity.
- Develop proposals for addressing pricing seams with and services offered to non-participants.
- Develop assessment criteria, consider available pricing options, and identify suggested alternative.

## Schedule for 2003 Congestion Management

Priority Codes: High ■ Normal ■

Work Group	Task No.	Task Description	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CMAWG	6	Analyze Mixed Phys/Fin CM Model -- Identify limited number of models to test												
CMAWG	7	Determine need and possibilities for common congestion clearing prices at boundaries												
CMAWG	8	Evaluate granularity requirements of physical system models used for internal & external calculations												
CMAWG	9	Progress report on 1st Quarter technical tasks												
CMAWG	11	Analyze Mixed Phys/Fin CM Model -- Test identified models for manageability												
CMAWG	21	Progress report on 2nd Quarter technical tasks												
CMAWG	22	Develop consensus proposal for core elements of seamless Western market												



## Schedule for 2003 Transmission Planning

Priority Codes: High ■ Normal ■

Work Group	Task No.	Task Description	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PWG	17	Develop Process Trans. Projects needed for economic reasons to facilitate seamless market				■	■	■						
PWG	18	Develop process for evaluating projects affecting multi- RTOs, developed externally & want RTO recovery.				■	■	■						
PWG	19	Determine if and how SSG-WI (joint RTO action) will support implementation of recommended projects				■	■	■						
PWG	20	Develop process to resolve difference for interconnections w/o FERC litigation				■	■	■						
PWG	23	Develop SSG-WI Transmission Plan							■	■	■			



## Schedule for 2003 Market Monitoring

Priority Codes: High ■ Normal ■

Work Group	Task No.	Task Description	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MMWG	1	Develop & Detail Market Monitor Structure Options												
MMWG	16	Develop Initial Proposal on Confidentiality of Data												



## Schedule for 2003 Common Systems Interface

Priority Codes: High ■ Normal ■

Work Group	Task No.	Task Description	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CSIC	2	Propose Implementation Plans for Seams-related systems												
CSIC	3	Examine other systems as necessary												
CSIC	10	Implementation Coordination												
CSIC	12	Simulation Coordination												
CSIC	13	Business Process Modeling												



## Schedule for 2003 Price Reciprocity

Priority Codes: High ■ Normal ■

Work Group	Task No.	Task Description	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PRWG	4	Identify existing and proposed charges applied to inter-RTO transactions	■	■	■									
PRWG	5	Develop assessment criteria.	■	■	■									
PRWG	14	Collect Data and Analyze financial implications of current and proposed transactions fee collections				■	■	■						
PRWG	15	Finalize Assessment Criteria				■	■	■						
PRWG	24	Finalized development of price reciprocity options							■	■	■			
PRWG	25	Consider Available pricing options							■	■	■			
PRWG	26	Develop Proposals for addressing pricing seams for services to non-participants										■	■	■
PRWG	27	Identify suggested alternatives										■	■	■



## **“Making It Work”**

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### **Practical Considerations:**

- Long history of finding West-wide solutions --Loop Flow & Phase Shifters, RTG Formation, etc.
- Inherent feedback between SSG-WI and RTOs, i.e., the same people working both processes.
- Sizable non-jurisdictional transmission assets in the West.

### **What We Need from FERC:**

- Flexibility in approach.
- Assistance in issue resolution.



## SSG-WI Website

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### **SSG-WI Website:**

- [www.ssg-wi.com](http://www.ssg-wi.com)
- Website provides information on upcoming SSG-WI meetings as well as documents regarding SSG-WI activities.